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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/769,801	01/25/2001	George A. Tropoloc	56553-P001CP1-09907871	4084

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EXAMINER
HUFNAGEL, GEORGE F

ART UNIT	PAPER NUMBER
3712	

DATE MAILED: 06/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

Office Action Summary	Application No.	Applicant(s)
	09/769,801	TROPOLOC
	Examiner	Art Unit
	George F Hufnagel	3712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____ .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-20_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-20_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☒ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)	4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _1_ .	6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1.   Claims 1 – 4, 6 – 11, 13 – 17 and 20 rejected under 35 U.S.C. 102(b) as being anticipated by Rai.

Regarding claim 1, Rai discloses all of the elements of the claim (shown in figure 1, described in column 2, lines 56 – 65), including a method (Alphabet Image Reading Method) for communicating language constructs of a language construct set (the set of letters comprising vowels in the English alphabet) comprising the steps of providing alternative visual stimuli (color) to communicate language constructs (the individual vowels, consonants and symbols) of said language construct set by associating a unique color (the colors red, yellow, green, blue and purple) with each language construct (the corresponding letters "a, e, i, o and u", respectively) of said language construct set, and representing each language construct. (Rai also discloses having color subsections having softer color tones for softer sounding letters and letter combinations, including pink, gray, etc. and the color black for consonants, etc.).

Regarding claim 2, Rai discloses all of the elements of the claim in figures 3 and 9 - 13, including a method further comprising the step of disposing (programming) representations of language constructs (colored letters and symbols) on a computer readable indicia (digital multimedia, "The educational curriculum mentioned as above from FIGS. 9 to 13 can be incorporated in the digital multimedia such as the computer and Internet. AIR system can be programmed in a digital

media and conjugate with a number of other interactive software programs.", column 7, lines 57 –

61) utilizing simple geometric shapes (lines, dots, semicircles and angles, shown as "macrons",

"diaeresis'", "breves", and circulflexes, described in column 5, lines 29 - 55).

Regarding claim 3, as best understood, Rai discloses all of the elements of the claim,

including a method wherein said computer readable indicia comprises geometric portions (lines, dots,

semicircles, and angles referenced above) designed to provide an orientation asymmetry (geometric

portions corresponding to vowels are above the letter, geometric portions corresponding to

consonants are below the letter, figures 1 and 2).

Regarding claim 4, Rai discloses all of the elements of the claim, including a method wherein

said computer readable indicia comprises color scaling portions (colors used in AIR markers are all

mixed ratios of the three primary colors, red, blue and yellow), wherein each color scaling portion

represents a baseline brightness level (font colors in AIR style programs are chosen from a color

"pallet" having colors of different brightness levels) associated with a discrete color component (for

example, "The light pink letters represent the softest vowel sound of the schwa sound.", and "The

schwa sound which is a soft vowel, is distinguished by using less intensive color to illustrate a softer

sound. Similarly the silent and redundant letters are subdued in lighter gray tone.", column 1, lines

42 – 46).

Regarding claim 6, Rai discloses all of the elements of the claim, including a method further

comprising the steps of detecting color states ("The AIR translation software program can rewrite

over the digital text into the AIR fonts with proper sounding which the students have selected to read.

The selected print text can be manually input or altered to a digital format through scanning into the

computer with existing published software and hardware. The students can choose the whole text or

select the words that need to be assisted into the AIR fonts with this AIR translation software

program.", column 8, lines 7 - 14) associated with a language construct representation disposed on

said computer readable indicia (digital multimedia, "The educational curriculum mentioned as above

from FIGS. 9 to 13 can be incorporated in the digital multimedia such as the computer and Internet.

AIR system can be programmed in a digital media and conjugate with a number of other interactive

software programs.", column 7, lines 57 – 61), and comparing (using a 16-bit color scanner, for

example, which was well known to one of ordinary skill in the relevant art at the time of the claimed

invention) said color states against values associated ("As shown in figure 13, the reading test can be

produced and administered similarly with computer with this AIR font software.", column 8, lines 1 -

6) with said color scaling portions.

Regarding claim 7, Rai discloses all of the elements of the claim, including a method wherein

said step of disposing is implemented via a personal computer and a color printer. ("It is still another

object of the present invention to provide a method of Alphabet image reading which is applicable on

any visual media that can be displayed, projected or printed onto.", column 1, lines 62 – 65).

Regarding claim 8, Rai discloses all of the elements of the claim, including a method wherein

the language construct set comprises a limited vocabulary of words. (figures 9 – 14 show a limited

vocabulary of words.)

Regarding claim 9, Rai discloses all of the elements of the claim, including a system

(Alphabet Image Reading Method) for communicating language constructs of a language construct

set (the set of letters comprising vowels in the English alphabet) comprising means for providing

alternative visual stimuli (color) to communicate language constructs (the individual vowels,

consonants and symbols) of said language construct set by associating a unique color (the colors red,

yellow, green, blue and purple) with each language construct (the corresponding letters "a, e, i, o and

u", respectively) of said language construct set; and means (digital text) for disposing (columns 1 and

2, lines 62 – 67 and 1 – 2, respectively) representations of language constructs on a computer

readable indicia ("applicable on any visual media that can be displayed, projected or printed onto"),

wherein said representations of language constructs utilize respective unique colors and a simple

geometric shape ("symbol markers").

Regarding claim 10, Rai discloses all of the elements of the claim, including a system

wherein said computer readable indicia comprises geometric portions (lines, dots, semicircles, and

angles) designed to provide an orientation asymmetry (geometric portions corresponding to vowels

are above the letter, geometric portions corresponding to consonants are below the letter, figures 1

and 2).

Regarding claim 11, Rai discloses all of the elements of the claim, including a system

wherein said means for disposing further creates ("It is still another object of the present invention to

provide a method of Alphabet image reading which is applicable on any visual media that can be

displayed, projected or printed onto.", column 1, lines 62 – 65) color scaling portions on said

computer readable indicia ("Digital text can be altered into this method through the application of

Alphabet Image Reading, hereafter referred to as AIR, software program", column 1, lines 62 – 65),

wherein each color scaling portion represents a baseline brightness level (colors used in AIR markers

are all mixed ratios of the three primary colors, red, blue and yellow, and font colors in AIR style programs are chosen from a color "pallet" having colors of different brightness levels) associated with a discrete color component (for example, "The light pink letters represent the softest vowel sound of the schwa sound.", and "The schwa sound which is a soft vowel, is distinguished by using less intensive color to illustrate a softer sound. Similarly the silent and redundant letters are subdued in lighter gray tone.", column 1, lines 42 – 46).

Regarding claim 13, Rai discloses all of the elements of the claim, including a system further comprising means (a computer scanner) for retrieving relative color states ("The AIR translation software program can rewrite over the digital text into the AIR fonts with proper sounding which the students have selected to read. The selected print text can be manually input or altered to a digital format through scanning into the computer with existing published software and hardware. The students can choose the whole text or select the words that need to be assisted into the AIR fonts with this AIR translation software program.", column 8, lines 7 - 14), and means for scaling (using a 16-bit color scanner, for example, which was well known to one of ordinary skill in the relevant art at the time of the claimed invention) said relative color states against values associated ("As shown in figure 13, the reading test can be produced and administered similarly with computer with this AIR font software.", column 8, lines 1 - 6) with said color scaling portions.

Regarding claim 14, Rai discloses all of the elements of the claim, including a system wherein the language construct set is a limited vocabulary of words. (Figures 9 – 14 show a limited vocabulary of words.)

Regarding claim 15, Rai discloses all of the elements of the claim, including a method (Alphabet Image Reading Method) for communicating characters (alphabet letters) of a character set (the set of letters comprising vowels in the English alphabet) comprising the steps of providing supplemental visual stimuli (color and symbols) to communicate characters of said character set by associating a unique color (the colors red, yellow, green, blue and purple, column 2, lines 60 - 62) with each character (the corresponding letters "a, e, i, o and u", respectively, column 2, lines 60 - 62) of said character set, and representing each character by utilizing its respective unique color and its typical geometric shape (the shape of the letter).

Regarding claim 16, Rai discloses all of the elements of the claim, including a method further comprising the step of presenting characters with respective unique colors via spelling tutorials. ("No matter which alphabet letter the word shows, the letter sound is lead by the color to its root and symbol to its relative key image sound. This simple overall mapping and image linking helps the students to memorize the sounding chart easier without deploying many complicated symbols or altering the original spelling.", column 6, lines 48 – 53).

Regarding claim 17, Rai discloses all of the elements of the claim, including a method wherein the method is implemented by a computer system ("The educational curriculum mentioned as above from FIGS. 9 to 13 can be incorporated in the digital multimedia such as the computer and Internet. AIR system can be programmed in a digital media and conjugate with a number of other interactive software programs. Such programs as reading, pronunciation check and dictionary software to enhance the learning and practice experiences.", column 7, lines 57 – 63) and the method

further comprises the step of receiving input ("The AIR translation software program can rewrite

over the digital text into the AIR fonts with proper sounding which the students have selected to read.

The selected print text can be manually input", column 8, lines 7 - 10) from a user to spell ("there is

provided an alphabet image reading method to teach and learn proper English reading, sounding and

spelling, by representing the colors and symbols to map overall category and to link to specific image

sounding without disrupting the spelling of the word.", column 8, lines 18 - 24) a word.

Regarding claim 20, Rai discloses all of the elements of the claim, including a method

wherein the step of representing provides redundancy of information such that each character of

said character set may be determined solely by reference to each character's respective color.

("Red, yellow, green, blue and purple are used for "a, e, i, o and u" vowels respectively to

represent each root color sounding", column 2, lines 60 - 62).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

2.   Claims 5, 12 and 18 – 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Rai, in view of Guinan.

Regarding claim 5, Rai discloses all of the elements of the claim, but for a method wherein

said computer readable indicia comprises a high contrast background. However, Guinan discloses all

of the elements of the claim in figure 10, including a method wherein computer readable indicia

(icons 56 - 62) comprises a high contrast background (white, black and half-tone icons and backgrounds, and vice verse). Therefore, it would have been obvious to one of ordinary skill in the relevant art at the time of the claimed invention, in view of Guinan, to have a method wherein said computer readable indicia comprises a high contrast background. ("In certain embodiments, the System demonstrates that a verb is in the past tense form by displaying the present tense icon on a half-toned screen. To show that the participle is being used, the icon is displayed in white on black format, i.e., a white icon on a black background. A complete conjugation of the verb "to do" is displayed in FIG. 10. The present tense of the verb is a black icon on a white background 56. The past tense is displayed on a half-toned screen 57. The future tense is a combination of the present tense icon for "will" and the present tense icon for "do" 58. To represent the perfect tenses for "do", the System adds the appropriate icon for "to have", and changes the "do" icon to "done" by changing to a white on black icon on a half-toned screen 59. Similarly, to show the continuous tenses for "do", the System adds the icon for "to be" and changes the "do" icon to "doing" by using a white on black icon 60. As shown in FIG. 10, the perfect, continuous forms of "to do" are formed by using either the present or past form of "have", the white on black version of "to be" on a half-toned screen, and the white on black icon for "doing." 16. The passive voice is displayed by using the appropriate icon for "to be" (along with "will" for the future tense) in combination with the past participle of "do"--which is white on black on a half-toned screen 62. This complete conjugation of the verb "to do" in FIG. 10 demonstrates how the System is able to teach all tenses through the use of icons alone.", column 6, lines 9 – 36, Guinan).

Regarding claim 12, Rai discloses all of the elements of the claim, but for a method wherein said computer readable indicia comprises a high contrast background. However, Guinan discloses all of the elements of the claim in figure 10, including a method wherein computer readable indicia (icons 56 - 62) comprises a high contrast background (white, black and half-tone icons and backgrounds, and vice verse).

Therefore, it would have been obvious to one of ordinary skill in the relevant art at the time of the claimed invention, in view of Guinan, to have a method wherein said computer readable indicia comprises a high contrast background. ("In certain embodiments, the System demonstrates that a verb is in the past tense form by displaying the present tense icon on a half-toned screen. To show that the participle is being used, the icon is displayed in white on black format, i.e., a white icon on a black background. A complete conjugation of the verb "to do" is displayed in FIG. 10. The present tense of the verb is a black icon on a white background 56. The past tense is displayed on a half-toned screen 57. The future tense is a combination of the present tense icon for "will" and the present tense icon for "do" 58. To represent the perfect tenses for "do", the System adds the appropriate icon for "to have", and changes the "do" icon to "done" by changing to a white on black icon on a half-toned screen 59. Similarly, to show the continuous tenses for "do", the System adds the icon for "to be" and changes the "do" icon to "doing" by using a white on black icon 60. As shown in FIG. 10, the perfect, continuous forms of "to do" are formed by using either the present or past form of "have", the white on black version of "to be" on a half-toned screen, and the white on black icon for "doing." 16. The passive voice is displayed by using the appropriate icon for "to be" (along with "will" for the future tense) in combination with the past participle of "do"--which is white on black on a half-toned screen 62. This complete conjugation of the verb "to do" in FIG. 10

demonstrates how the System is able to teach all tenses through the use of icons alone.", column 6, lines 9 – 36, Guinan).

Regarding claim 18, Rai discloses all of the elements of the claim, but for a method further comprising the step of providing feedback to said user when an incorrect character is entered by flashing a respective color associated with a proper character. However, Guinan teaches a method further comprising the step of providing feedback ("in the event that the user does not type the word correctly, the System, in certain embodiments, may provide the user with immediate aural or other feedback to indicate the error") to said user when an incorrect character is entered (typed) by flashing a respective color (Certain embodiments also provide the user with icon dictionaries--a list of all icon blocks (either with or without voiced translations) that are either introduced or available for use in the system lessons. Portions of this dictionary may be displayed on the screen of a sample lesson, and may be used during the lesson to highlight the correct word to be input by the user.", column 2, lines 51 – 58) associated with a proper character. Therefore, it would have been obvious, in view of Guinan, to have a method further comprising the step of providing feedback to said user when an incorrect character is entered by flashing a respective color associated with a proper character, for the purpose of providing a system wherein "the user with a voiced translation of the word that corresponds with an icon. The inclusion of the voiced translation--for a fusion of icon, text and voiced translation--further facilitates and expedites the learning process, enabling the user to learn to speak the language in addition to learning to read and write.", (column 2, lines 45 – 51, Guinan).

Regarding claim 19, Rai discloses all of the elements of the claim, but for a method further comprising the step of providing feedback to said user by flashing a respective color associated with

a current character. However, Guinan teaches a method further comprising the step of providing

feedback to said user by flashing a respective color (highlight the empty box under the icon for

"they" and "their) associated with a current character. ("At the beginning of the lesson, an arrow-

shaped cursor highlights the first empty text box in the first icon sentence. For example, in the first

icon sentence in FIG. 1, the System would highlight the empty box under the icon for "they" and

"their." 51. At the same time, the System, in certain embodiments, emits the voiced translation for

the appropriate word that the user should type. (When the lessson is initially created, the System is

instructed to highlight the appropriate word--as between "they" and "their"--based on the location of

that word and its context in the sample sentence.) Additionally, the appropriate word in the icon

dictionary is also highlighted 52. These three prompts--the sentence prompt, the auditory prompt and

the icon dictionary prompt--are transmitted and perceived by the user simultaneously.", column 5,

lines 1 – 15).

Conclusion

3.   The prior art (S*T Color Works sales brochure, copyright 1996) made of record and not

relied upon is considered pertinent to applicants disclosure, being more than 1 year prior to this

patent application, is considered a usable prior art reference, capable of rejecting some claims in

the application. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to George F Hufnagel whose telephone number is 703-605-1235.

The examiner can normally be reached on Mon - Fri 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Derris Banks can be reached on 703-308-1745. The fax phone numbers for the

organization where this application or proceeding is assigned are 703-872-9302 for regular

communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703-872-9301.

GFH
June 2, 2002
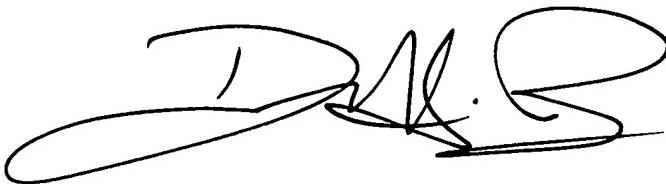
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